

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Robert Sokohl on 7/30/2010.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/11/2010 has been entered.

Please amend the application as follows:

In the claims:

15. (Currently Amended) A cryptography accelerator, comprising:

a first processing engine configured to process a first control record;

a second processing engine configured to process a second control record,

wherein the first and second processing engines are configured to process the first and second control records in parallel;

a history buffer, implemented using memory, configured to retain information associated with the first and second control records including a first interrupt indicator associated with the first control record and a second interrupt indicator associated with the second control record;

wherein the first interrupt indicator associated with the first control record is moved onto a second interrupt indicator associated with the second control record if processing of the first control record completes before processing of the second control record completes and the first control record is younger than the second control record; and

wherein an interrupt is generated if processing of the first control record completes before processing of the second control record completes and the first control record is older than the second control record, the interrupt configured to be generated before processing of the second control record completes,

wherein moving the first interrupt indicator comprises setting the first interrupt indicator associated with the first control record to disabled and setting the second

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interrupt indicator associated with the second control record to enabled before processing of the second control record completes.

Allowable Subject Matter

Claims 1-4, 8-12, 14-16, 18, 22-24, and 26 are allowed.

The following is an examiner's statement of reasons for allowance:

The closest prior art (Wang, Bashford, and Pierson, as applied in the final office action dated 3/11/2010) teaches parallel processing of data and synchronization of multiple processing units via use of flags, indicators, registers, and interrupts. What the prior art fails to teach, singly or in combination, is the fact that moving of the first interrupt indicator onto the second interrupt indicator occurs before processing of the second data completes, where moving of the interrupt indicator comprises setting the first interrupt indicator to disabled and setting the second interrupt indicator to enabled.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEFFREY D. POPHAM whose telephone number is (571)272-7215. The examiner can normally be reached on M-F 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571)272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jeffrey D Popham
Examiner
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/Jeffrey D Popham/
Examiner, Art Unit 2437